

## **VITA**

### **Ragaei W. El Mallakh**

Professor of Economics and Director  
International Research Center for Energy and Economic Development  
University of Colorado  
Boulder, Colorado U. S. A.

**Born:** March 5, 1925 in Tanta, Egypt

**Died:** March 19, 1987 in Boulder, Colorado

### **Present position as of March 1987:**

Professor of Economics, University of Colorado at Boulder, Boulder, Colorado. Joined faculty in September 1956.

Director, The International Research Center for Energy and Economic Development (ICEED), 1973-1987

Editor, *The Journal of Energy and Development*, 1975-1987

### **Educational background:**

Ph.D., Rutgers University, the State University of New Jersey, U.S.A., 1955 (Economics)

M.A., Rutgers University, New Jersey, 1951 (Economics)

M.A., School of Law, University of Cairo, Egypt, 1949 (Degree in Financial and Economic Studies)

B.A., Faculty of Commerce, University of Cairo, 1947

### **Fellowships, grants, awards, and positions held:**

Member, Board of Editors, *The International Journal of Middle East Studies*, Cambridge University Press, quarterly publication of the Middle East Studies Association of North America and the British Society for Middle Eastern Studies, elected to term in 1977.

Member, Board of Editors, *The Middle East Journal*, quarterly publication of the Middle East Institute, Washington, D. C, elected to term in 1977.

Member, Editorial Board of Directors, *American Journal of Arabic Studies*, published by Brill (Holland), 1972-present.

Regular reviewer on Middle East and oil economics for *Choice* (monthly publication of the Association of College and Research Libraries, American Library Association), 1982-present.

Chairman, African and Middle Eastern Studies Committee and Program, University of Colorado, 1966-present.

Member, Committee for the Conference on World Affairs, University of Colorado, 1966-present.

Member, Area Advisory Committee for the Middle East of the Council for International Exchange of Scholars, appointed to a three-year term beginning autumn 1983. A principal responsibility of the Council is to nominate candidates for senior Fulbright awards abroad.

Member, Advisory Board on Technology Transfer, Office of Technology Assessment, U. S. Congress, 1982-1985.

Member (appointed), Ad Hoc Group of Energy and Petroleum Experts on "Energy in the Eighties," United Nations, New York, December 14-18, 1981. Met periodically throughout 1980s.

Member (elected), Board of Governors, The Middle East Institute, Washington, D. C, 1980-1986.

Member, U. S. Delegation to the World Energy Conference, Munich, Germany, September 1980.

Member, United States National Committee on the World Petroleum Congresses, 1976-1980, requested to remain for second term, 1980-1984, and third term, 1984-1988.

Member, Supply-Technical Advisory Task Force-Foreign Gas Supply, Federal Power Commission, Washington, D. C, 1975-1979.

Economic consultant, The World Bank, Washington, D. C, 1962-1963 (on leave from the University of Colorado).

Postdoctoral fellow, Harvard University, Cambridge, Massachusetts, 1955-1956.

Award in recognition of the quality of research and analysis in development economics, Kuwait Foundation for the Advancement of Sciences, April 1984.

Memorial Prize for Finance of Prime Minister of Ahmed Maher Pasha, Cairo University, 1949.

Fulbright Fellow to the United States from Egypt, 1950-1951.

Grant for study of Middle Eastern economic development, the Hoover Institution, Stanford University, 1981.

Director, study on "New Constraints on Absorptive Capacity and the Optimum Rate of Petroleum Output," U. S. Department of Energy contract no. DE-ACO1-80IA10056, August 1980-December 1981.

Director, Rockefeller Foundation grant for study on "New Constraints on Absorptive Capacity and the Optimum Rate of Petroleum Output," August 1, 1979-August 1, 1980.

Director, Ford Foundation grant for study on "Financing United States Petroleum Imports," October 1, 1978-September 30, 1979.

Director, National Science Foundation grants, nos. APR 75-22411 and 77-00902, for study on

"Implications of Regional Development in the Middle East for United States Trade, Capital Flows, and Balance of Payments," 1975-1977.

Ford Foundation grant, summer 1973, in support of a study on the economic development of the Arab states of the Gulf.

Social Science Research Council grants, 1966 and 1968-1969.

Social Science Foundation, Graduate School of International Studies, University of Denver, 1965.

Rockefeller Foundation grant, in support of study on Middle Eastern economic regionalism, 1960-1961.

Council on Creative Research grants, University of Colorado Graduate School, in 1961-1962, 1963, 1966, fellowship in 1970-1971.

### **Selected publications:**

#### **I. Books**

*Oman: The Process of Development.* London: Croom Helm Ltd., and New York: St. Martin's Press, forthcoming 1988.

Contributor, "Energy Issues and Options in the Indian Economy," in *Energy Resources and Technology in South Asia.* Universities Press for the Woodrow Wilson International Center, Smithsonian Institution, Washington, D.C., 1987.

Contributor, "Arab Oil: Implications for the Future," "Qatar: Energy and Development," and "Kuwait: From Affluence to Development," three chapters in *The Middle East*, ed. Michael Adams. London: Muller, Blond & White Ltd., and New York: Praeger Publishers, 1987.

Coauthor. *OPEC and the United States.* Boulder, Colorado: Westview Press, forthcoming 1988.

*The Egyptian Energy Sector: A Profile.* Boulder, Colorado: Westview Press, forthcoming 1987.

Editor. *The Natural Gas Industry: Problems and Potential.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1987.

*The Economic Development of the Yemen Arab Republic.* London: Croom Helm Ltd., and New York: St. Martin's Press, 1986.

Editor. *The Middle East, Pacific Basin, and the United States: Refining and Petrochemicals.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1986.

*Qatar: Energy and Development.* London: Croom Helm Ltd., and New York: St. Martin's Press, 1985.

Coeditor. *Mexico's Energy Resources: Toward a Policy of Diversification.* Boulder, Colorado: Westview Press, 1985.

Contributor. "Pemex and Statoil: Case Studies in Public Enterprise," (with B. Poulson and O. Noreng) in proceedings of *Simposia Internacional Sobre La Empresa Publica.* Mexico City: Centra de Investigacion y Docencia Economicas A. G., 1985.

- Editor. *Energy Development in the Western United States: Financing Prospect and International Implications*. Boulder, Colorado: International Research Center for Energy and Economic Development, 1984.
- Contributor, "The Gulf Cooperation Council and the Prospects for Gulf Economic Coordination," in *The Impact of Oil Revenues on Arab Gulf Development*, ed. M. S. El Azhary. London: Croom Helm Ltd., and Boulder, Colorado: Westview Press, 1984. Proceedings of the symposium of the Centre for Arab Gulf Studies and the Gulf Petroleum Information Committee held at the University of Exeter, England, October 25-27, 1982.
- Contributor, "The World Oil Market: Lessons from the Past and Indications for the Future," in *The International Oil Market Ten Years After the 1973 Crisis*, ed. Antoine Ayoub. Quebec City, Quebec: Laval University Press, 1984.
- Contributor, "Economics and Energy Conservation," in *Energy Conservation Measures*, ed. J. D. Parker. Oxford and New York: Pergamon Press, 1984.
- Contributor, "OPEC Supply," in *Adapting to Changing Energy Prices* (proceedings of the International Association of Energy Economists' 3rd annual conference), eds. Campbell Watkins and Leonard Waver-man. Cambridge: Oelgeschlager, Gunn & Hain, 1984.
- Coauthor. *Petroleum and Economic Development: The Cases of Mexico and Norway*. Lexington: D. C. Heath and Company, 1984.
- Contributor, "U. S. Economic Ties with the Arab States of the Gulf and Egypt," in *The Middle East Annual: Issues and Events, volume 2*, ed. David H. Partington. Boston: G. K. Hall, 1983.
- Contributor, "Energy Issues Affecting Developing Countries," in *Government and Energy Policy* (proceedings of the International Association of Energy Economists' 5th annual North American meeting), ed. Richard Itteilag. Boulder, Colorado: Westview Press, 1983.
- Editor. *Heavy versus Light Oil: Technical Issues and Economic Considerations*. Boulder, Colorado: International Research Center for Energy and Economic Development, 1983.
- Saudi Arabia: Rush to Development/Profile of an Energy Economy and Investment*. Baltimore: The Johns Hopkins University Press, and London: Croom Helm Ltd., 1982.
- Coeditor/author. *Saudi Arabia: Energy, Developmental Planning and Industrialization*. Lexington: D. C. Heath and Company, 1982.
- Editor. *OPEC: Twenty Years and Beyond*. Boulder, Colorado: Westview Press, and London: Croom Helm Ltd., 1982.
- Coauthor. *The Absorptive Capacity of Kuwait: Domestic and International Perspectives*. Lexington: D. C. Heath and Company, 1981.
- The Economic Development of the United Arab Emirates*. New York: St. Martin's Press, and London: Croom Helm Ltd., 1981.
- Coeditor. *New Policy Imperatives for Energy Producers*. Boulder, Colorado: International Research Center for Energy and Economic Development, 1980.
- Coauthor. *The Great Ideas Today, 1980* ("Energy: The International Economic Implications"). Chicago: Encyclopedia Britannica, Inc., 1980.

- Qatar: Development of an Oil Economy.* London: Croom Helm Ltd., and New York: St. Martin's Press, 1979.
- Kuwait: Trade and Investment.* Boulder, Colorado: Westview Press, Westview Special Studies in International Economics and Business, 1979.
- Coauthor. *The Middle East in the Coming Decade: From Wellhead to Wellbeing?* New York: McGraw-Hill Book Company, 1978. This is one volume in a series of the 1980s Project of the Council on Foreign Relations.
- Coauthor. *Capital Investment in the Middle East: The Use of Surplus Funds for Regional Development.* New York: Praeger Publishers, 1977.
- Coauthor. *Implications of Regional Development in the Middle East for U. S. Trade, Capital Flows, and Balance of Payments.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1977. Summary report of a National Science Foundation project.
- Coeditor. *Energy Options and Conservation.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1978. Proceedings of the Fourth International conference, University of Colorado, Boulder, October 17-19, 1977.
- Coeditor. *U. S. and World Energy Resources: Prospects and Priorities.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1977. Proceedings of the Third International Conference, University of Colorado, Boulder, October 18-19, 1976.
- Coeditor/author. *Energy and Development.* Boulder, Colorado: International Research Center for Energy and Economic Development, 1974. Proceedings of the First International Conference, University of Colorado, Boulder, May 9-11, 1974. Also contributor of chapter 1.
- Kuwait: Economic Development and Regional Cooperation.* Chicago: University of Chicago Press, 1968. (Foreword by Eugene R. Black.) Third printing, 1971.
- Contributor. *The Political Economy of the Middle East.* Volume prepared by the Congressional Research Service of the Library of Congress for the Joint Economic Committee of the United States Congress, 1979.
- Contributor. "Mexico, the United States, and OPEC: A Potential Energy Triangle," in *U.S.-Mexico Economic Relations*, eds. Barry W. Poulson and T. Noel Osborn. Boulder, Colorado: Westview Press, Westview Special Studies in International Economics and Business, 1979.
- Contributor. "OPEC and Alternative Energy Resources," in *Energy: International Cooperation or Crisis*, ed. Antoine Ayoub. Laval, Quebec: Les Presses de l'Université Laval, 1979.
- Contributor. "The Future of Petroleum in Relation to Energy Alternatives," in *Proceedings of the Tenth Arab Petroleum Congress*, Tripoli, Libya, January 16-22, 1978. Cairo, Egypt: League of Arab States, 1978.
- Contributor. "The Organization of the Arab Petroleum Exporting Countries: Objectives and Potential," in *Annual Review of Energy*, vol. 2. Palo Alto, California: Annual Reviews, Inc., 1977.
- Contributor. Articles on energy and on natural gas, *1977 Americana Annual Encyclopedia Year Book*, 1977.
- Contributor. "Industrialization in the Arab World: Obstacles and Prospects," in *Arab Oil: Impact on Arab*

*Countries and Global Implications*, eds. Naiem Sherbiny and Mark Tessler. New York: Praeger Publishers, 1976.

Contributor. "Economic Growth and Development," in *The Process of Development in the Middle East: Goals and Achievements*, proceedings of the 30th Annual Conference of the Middle East Institute. Washington, D. C: Middle East Institute, 1976.

Contributor/coauthor. *The Arab Middle East: Economic Potential*. Palo Alto, California: Stanford Research Institute, 1976.

Contributor. "*Trade and Commerce*" in *The Genius of Arab Civilization: Source of Renaissance*, ed. John R. Hayes. New York: New York University Press, 1975. Paperback edition, Cambridge, Massachusetts: M.I.T. Press, 1978. Second and revised edition, 1983.

Contributor. "Arab Petroleum Producers and the United States: Conflict or Mutuality of Interests?" in *Proceedings of the Eighth Arab Petroleum Congress*. Cairo, Egypt: League of Arab States, 1972.

Contributor. "Kuwait," in *The Middle East*, ed. Michael Adams. London: Anthony Blond, Ltd., 1970.

Contributor. "Oil Royalties and Arab Development," in *Middle East Focus: The Persian Gulf*, proceedings of a Princeton University Conference, 1969.

Contributor. "The Oil Have's and Have Not's: Intra-Aid Among Developing Countries," in *International Development 1968*, ed. John H. Adler. Proceedings of the Tenth Anniversary World Conference, Society for International Development, Washington, D. C. New York: Oceana Publications, Inc., 1969.

Contributor. "Foreign Aid: Not a One-Way Program," in *Readings in Economics*, ed., Thomas J. Hailstones, 2nd edition. Cincinnati: South-Western Publishing Company, 1969.

Contributor. "Trends Toward Economic Unity in the Arab Middle East," in *The Arab Nation: Paths and Obstacles to Fulfillment*, ed. William Sands. Washington, D. C: The Middle East Institute, 1961.

## II. Monographs

*The Economics of a Reopened Suez Canal*. Problem paper number 4. Washington, D. C: The Middle East Institute, April 1974.

*The United States and the Suez Canal: A Study in Economic Mutuality of Interests*. New York: League of Arab States, 1974. Portions of this monograph were originally presented as the keynote address to a conference on U.S. foreign policy, United States Air Force Academy, Colorado, November 1973.

*The Suez Canal: Its Economic Significance*. New York: American-Arab Association for Commerce and Industry, Inc., 1971. Portions of this monograph appeared in *Plan's Oilgram*, *Middle East Economic Survey*, *Wall Street Journal*, *New York Times*, and Middle Eastern and European journals. A collection of commentary on this monograph was inserted in the United States, *Congressional Record*, April 22, 1971, pp. S5434-5436. The monograph was reprinted *in toto* in *The Middle East 1971*, Hearings before the Subcommittee on the Near East, Foreign Affairs Committee, United States House of Representatives, 92nd Congress, 1st session, 1971. Washington, D. C: Government Printing Office.

*Some Dimensions of Middle East Oil: The Producing Countries and the United States*. New York: American Arab Association for Commerce and Industry, Inc., 1970. Portions of this monograph have been reprinted in *Platt's Oilgram* and *Middle East Economic Survey* as well as various Arabic journals in the Middle East.

### III. Articles (partial listing)

- "Point/Counterpoint: Imposing Oil Import Fees," *The Denver Post*, November 24, 1986.
- "Perils in an Oil-Import Tax," *The Denver Post*, April 14, 1986.
- "Resisting Oil-Price Temptations," *The Chicago Tribune*, March 1, 1986.
- "The Sharp Drop in World Prices," *Christian Science Monitor*, February 19, 1986.
- "Energy Issues and Options in the Indian Economy," in proceedings of the conference on *Energy Resources and Technology* in South Asia, The Wilson Center, Washington, D. C, forthcoming 1987.
- "Refining, Petrochemicals, and Natural Gas," *Petrol* (Cairo), November 1985 (in Arabic).
- "Economic Problems Confronting OPEC," *Petrol* May 1985 (in Arabic).
- "We're in the Same Economic Boat with OPEC," *New York Times*, January 20, 1985 (commentary).
- "Hydrocarbons in a Changing World: Some Future Strategies," *OPEC Review*, autumn 1982 (Pergamon Press).
- "Where Does the OPEC Money Go?" *The Wharton Magazine*, vol. 4, no. 2 (winter 1980).
- "How Can Vicious Circle in World Oil Be Broken?" *Christian Science Monitor*. December 17, 1979, special section on energy.
- "New Trends in Trade with OPEC," *Current History*, May/June 1979.
- "Mexico, Estados Unidos y la OPEP: un triangulo energetico en potencia," *Investigacion Economia*, vol. XXXVIII, nos. 148-149 (April-September 1979).
- "El impacto distributivo de la OPEP," *Investigacion Economia* vol. XXXVIII, nos. 14B-149 (April-September 1979).
- "OPEC's Downstream Gaze," *Christian Science Monitor*, guest editorial, November 17, 1979.
- "Shadowboxing: The OPEC Threat," *Executive* (Graduate School of Business and Public Administration, Cornell University), fall 1978. Other contributors to this special energy issue included: Secretary of Energy James Schlesinger; Ulf Lantzke, Director of the International Energy Agency; former Secretary of State William D. Rogers.
- "Oil in the 1980s: Some Issues of Supply and Demand," *OPEC Review* (Vienna), June 1978.
- "On Oil Supply and Demand," *New York Times*, February 6, 1978, editorial page.
- "Coming Energy Realities: Responses and Responsibility," in *Energy: Realities and Responses* (report of the United Bank of Denver, 1978). Other contributors included: U.S. Secretary of Energy James Schlesinger; Dr. Thomas R. Stauffer, Center for Middle Eastern Studies, Harvard University; Dr. Ali Attiga, Secretary-General, Organization of the Arab Petroleum Exporting Countries, Kuwait.
- "OPEC: Issues of Supply and Demand," *Current History*, March 1978.

- "Absorptive Capacity, Surplus Funds, and Regional Capital Mobility in the Middle East," (coauthor), *Rivista Internazionale di Scienze Economiche e Commerciali*, vol. XXIV, no. 4 (1977).
- "Capital Surpluses and Deficits in the Arab Middle East," (coauthor), *The International Journal of Middle East Studies*, April 1977.
- "The Agenda with OPEC," report to the Energy Subcommittee, Joint Economic Committee of the United States Congress, *Congressional Record*, March 2, 1977, pp. S3335-S3337.
- "Arab Institutionalized Development Aid: An Evaluation," (coauthor), *The Middle East Journal*, autumn 1976.
- "Oil and OPEC Members," *Current History*, July/August 1975. "Oil: The Search for a Scapegoat," *Middle East International* (London), April 1975. "Why Blame the Arabs?" *Christian Science Monitor*, guest editorial, February 25, 1975. "American-Arab Economic Relations," *Energy Policy* (London), September 1975. "Scapegoatism and Interdependence," *Denver Post*, guest editorial, November 24, 1974.
- "The Absorptive Capacity of the Arab World and Investment Policies," in *Investment Policies of Arab Oil Producing Countries*, published by Arab Planning Institute (a United Nations affiliate), Kuwait, 1974.
- Guest editorials and articles on the energy crisis in *Christian Science Monitor* (December 19 1973), *Chicago Tribune* (December 21, 1973), *Wall Street Journal* (September 4 and December 7, 1973), *New York Times* (April 6, 1974), *Milwaukee Journal* (January 24, 1974), *The (Cleveland) Plain Dealer* (October 25, 1974).
- "The United States and Arab Oil Policy," in *The Impact of the October Middle East War*, hearings before the Subcommittee on the Near East and South Asia, Foreign Affairs Committee, U. S. House of Representatives, 93rd Congress, 1st session. Washington, D. C: Government Printing Office.
- "Development in Agriculture and the Limited Supply of Labour: The Experience of the Arabian Peninsula," United Nations Economic Commission for Western Asia, First Regional Population Conference, Beirut, Lebanon, February 18-March 1, 1974, published as Doc. No. ECWA/POP. CON.I/SP.23/E.
- "The United States and Arab Oil Policy," *The Wall Street (Journal) Transcript* March 4, 1971.
- "Industrialization in the *Middle East: Obstacles and Potential*," Middle East Studies Association Bulletin, October 15, 1973.
- "Arab States with Mature Oil Economies," in *The Arabian Peninsula, Iran and the Gulf States: New Wealth, New Power*, Washington, D.C., The Middle East Institute, 1973.
- Articles on the economies of Saudi Arabia, Kuwait, and the United Arab Emirates in *Colliers Encyclopedia* and *Merit Student Encyclopedia*, 1973 editions.
- "Arab Petroleum and Developments in International Economic Relations," *Al-Majal* (Washington, D. C), January 1973 (in Arabic).
- "The Kuwait Fund," *Al-Majal* (Washington, D. C), no. 42, 1972 (in Arabic).

- "Economic Requirements for Development: Oman," *The Middle East Journal*, fall 1972.
- "The Suez Canal Closure: Its Cost for the United States," *Middle East Forum* (quarterly of the American University in Beirut), special issue on The Middle East Today, autumn and winter 1971.
- "The Challenge of Affluence: Abu Dhabi," *The Middle East Journal*, summer 1970.
- "Some Dimensions of Middle East Oil: The Producers and the United States," *Quarterly* of the Colorado School of Mines, autumn 1969. A special issue with the proceedings of the Second Annual Rocky Mountain Petroleum Economics Institute.
- "The Economics of Rapid Growth: Libya," *The Middle East Journal*, summer 1969.
- "The Kuwait Fund: Example of Economic Development through Cooperation," *Redaktion Bustan* of the Hammer-Purgstall-Gesellschaft zur Forderung der kulturellen und wirtschaftlichen Beziehungen zum Vorderen Orient (Vienna), no. 2, 1969 (in German).
- "La Programmazione in un'Economia con Eccesso di Capitali: Il Caso della Libia," ("Planning in the Capital Surplus Economy: The Case of Libya"), *Rivista Internazionale di Scienze Economiche e Commerciali* (Milan), no. 2, 1969 (in Italian).
- "The Economic Importance of the Middle East to the United States," *Middle East Economic Survey* (The Middle East Research and Publishing Center, Beirut), supplement, November 21, 1969.
- "Affluence versus Development: Libya," *The World Today* (journal of the Royal Institute of International Affairs, London), November 1968.
- "Planning in a Capital Surplus Economy: Kuwait," *Land Economics* November 1966.
- "Kuwait's Foreign Aid: Intra-Help Among Developing Countries," *International Development Review* (Society for International Development, Washington, D. C), December 1965.
- "Kuwaiti Aid to Africa," *The Journal of Modern African Studies* (Cambridge University Press), vol. III, no. 3 (1965).
- "The Cloudy Future of Foreign Aid," *The New Republic*, September 23, 1965.
- "Economic Development through Cooperation: The Kuwait Fund," *The Middle East Journal*, autumn 1964.
- "Foreign Aid," *Challenge* (Institute of Economic Affairs, New York University), December 1964.
- "Economic Integration in the U.A.R.—A Study in Resources Development," *Land Economics*, August 1960.
- "Prospects for Increased American Trade with the Arabian Peninsula Fringe States," (coauthor), *International Trade Review* (published by Dun and Bradstreet), August 1960.
- "The Economics of the Suez Canal under U.A.R. Management," (coauthor), *The Middle East Journal*, spring 1960.
- "Some Economic Aspects of the Aswan High Dam Project," *Land Economics*, February 1959.
- Articles have also appeared in *Al-Ahram* and *Al-Iktasady*.

#### IV. Book reviews (partial listing)

Giamoco Luciani, *The Oil Companies and the Arab World* (London and Canberra: Groom Helm and New York: St. Martin's Press, 1984) and William Stivers, *Supremacy and Oil: Iraq, Turkey, and the Anglo-American World Order* (Ithaca: Cornell University Press, 1982), for *American-Arab Affairs*, no. 10 (winter 1984/85).

Jacqueline S. Ismael, *Kuwait: Social Change in Historical Perspective* (Syracuse, New York: Syracuse University Press, 1982), for *International Journal of Middle East Studies*, vol. 15, no. 4 (October 1984).

A. A. El-Sherbini, editor, *Food Security Issues in the Arab Near East* (Oxford: Pergamon Press for the United Nations Economic Commission for Western Asia, 1979), for *Economic Development and Cultural Change*, autumn 1980.

John C. Ausland, *Norway, Oil and Foreign Policy* (Boulder: Westview Press, 1979); Elihu Bergman, Hans A. Bethe, and Robert E. Maeshak, *American Energy Choices Before the Year 2000* (Lexington: D. C. Heath and Company, Lexington Books, 1978); Douglas R. Bohi and Milton Russell, *Limiting Oil Imports* (Baltimore: The Johns Hopkins University Press for Resources for the Future, Inc., 1978); and Louis Turner, *Oil Companies in the International System* (London: Allen & Unwin, Inc., for the Royal Institute of International Affairs, 1978), for the *Journal of Economic Literature*, June 1980.

G. R. Boynton and Chong Lim Kim, editors, *Legislative Systems in Developing Countries* (Duke University Press, 1975), for *Kyklos*, (Basel), vol. 30, no. 4.

Faisal S. Al-Bashir, *A Structural Econometric Model of the Saudi Arabian Economy: 1960-1970* (Wiley Publishers, 1977), for *Middle East Studies Association Bulletin*, December 1978.

John Duke Anthony, editor, *The Middle East: Oil, Politics and Development* (Washington, D. C: American Enterprise Institute, 1975), for *The Middle East Journal*, summer 1978.

Shoshana Klebanoff, *Middle East Oil and U.S. Foreign Policy, with Special Reference to the U. S. Energy Crisis* (New York: Praeger Publishers, 1974), for *Middle East Studies Association Bulletin*, October 1975.

Government of Kenya, *Economic Plan, 1975-1980*, for *Cultures et Developpement* (Universite catholique de Louvain, Belgium), March 1975.

Ray Vickers, *The Kingdom of Oil* (New York: Charles Scribner's Sons, 1974), for *The Middle East Journal*, winter 1975.

A. P. Thirlwall, *Growth and Development with Special Reference to Developing Economies* (London: Macmillan Press, 1972), for *Kyklos*, winter 1974.

Additional reviews have appeared in the *American Economic Review*, *Journal of Economic Literature*, *Africa Today*, *Journal of Modern African Studies*, among others.

#### Selected listing of projects, papers, guest lectures, other activities:

Paper, "Oil-Producer Energy Policies," Aspen Institute for Humanistic Studies, conference on energy; other invited participants included U. S. Secretary of Energy John Herrington, Aspen, Colorado, August 16-20, 1986.

Paper, "The Changing World Supply of Oil: OPEC and Non-OPEC," Conference on World Energy

Markets, sponsored by the Federal Reserve Bank of Kansas City, Denver, Colorado, September 5, 1986.

Paper, "International Energy Trends and the Impact on Colorado and the Western United States," Conference on Western Energy and Public Affairs, American Communications Foundation (Los Angeles), held at Keystone, Colorado, October 18-19, 1968.

Paper, "Oil Policies of the Gulf States," Annual Conference, Middle East Studies Association of North America, Boston, November 21, 1986.

Keynote address, "Economic Ramifications of World Energy Markets," Seminar, Central Bank of Denver, Natural Resources Division, Denver, Colorado, November 5, 1986.

Participant, Symposium on Technology Transfer, Massachusetts Institute of Technology, Cambridge, November 20, 1986.

Organizer and chairman, Thirteenth Annual International Energy Conference on "Changing Oil and Gas Supply: OPEC and Non-OPEC," Boulder, Colorado, November 12-13, 1986.

Organizer and Chairman, Seventh International Area Conference on "The Gulf Cooperation Council: Energy Developments and International Trade," Boulder, Colorado, November 13-14, 1986.

Invited participant, Conference on "Islamic Banking and Finance: Current Issues and Future Prospects," Washington, D.C., September 25-26, 1986.

Address on "Impact of Declining Oil Prices on Gas Trade," to "Gas: Its Economics, Marketing and Management Seminar" of the Transportation Center, Northwestern University, Evanston, Illinois, September 16, 1986.

Panel speaker, "Light and Heavy Crudes," at conference on "Lower Oil Prices: The Impact on Oil Exploration, Development and Financing," Institute for the Study of Earth and Man at Southern Methodist University, Dallas, Texas, September 4, 1986.

Paper, "The Restructuring of the International Oil Market," to the Annual International Conference of the International Association of Energy Economists, Tokyo, June 6-7, 1986.

Paper, "Energy Issues and Options in the Indian Economy," Conference on Energy Resources and Technology in South Asia, Woodrow Wilson International Center for Scholars, Smithsonian Institution, Washington, D.C., May 20, 1986.

Invited participant, Conference on "Managing Oil Market Risk," Energy and Environmental Policy Center, Harvard University, Cambridge, May 8-9, 1986.

Interview, Voice of America, Washington, D.C., March 21, 1986, on "Developments in the International Oil Market."

Addresses to meetings with energy analysts, New York (May 14, 1986), Boston (May 8, 1986) and Houston (March 11, 1986).

Interviews on oil price developments with the *New York Times* (April 16, 1986 and April 7, 1986) and *Christian Science Monitor* (April 14, 1985).

Commentary, "The Outlook for Oil Prices," *Wall Street Journal*, March 12, 1986.

Radio interview, *Christian Science Monitor* news program aired over public broadcasting stations,

January 24, 1986, interviewed in Riyadh, Saudi Arabia.

Guest lecturer to faculty and students (graduate and undergraduate faculties), Ain Shams University, Cairo, December 27, 1985 (approximately 2,500 attending).

Paper, "Factors Impacting on Exploration," Egyptian Society of Petroleum Exploration, Cairo, December 29, 1985.

Keynote speaker, "Forecasting International Energy Trends," conference on U. S. energy, San Jose State University, San Jose, California, November 12, 1985.

Chairman and organizer, Sixth International Area Conference on "The Middle East, Pacific Basin, and United States: Refining and Petrochemicals," University of Colorado, Boulder, October 14-15, 1985.

Chairman and organizer, Twelfth International Energy Conference on "The Natural Gas Industry: Problems and Potential," University of Colorado, Boulder, October 16-17, 1985.

Guest lecturer in economics, Colorado School of Mines, Golden, September 19, 1985.

Participant, Annual Meeting of the Middle East Institute, Washington, D.C., September 25-28, 1985.

Speaker, "Current Economic Trends in Energy," Colorado Chapter, International Association of Energy Economists, Denver, July 18, 1985.

Participant, panel at the Third Arab Energy Conference, Algiers, Algeria, May 4-9, 1985.

Speaker, in two sessions on "Economic Development and Energy Trends in the Gulf Countries" and "International Energy Situation," The Transportation Center, Petroleum Economics and Management Seminar, Northwestern University, Evanston, Illinois, April 9, 1985.

Briefings on world energy trends and economics, United States Embassy and Economic Department staff of Embassy, Riyadh, Saudi Arabia.

Address, "Economic Development Priorities and Problems," University Convocation, University of Sana'a, North Yemen, March 12, 1985.

Guest speaker, American Institute of Yemeni Studies, Sana'a, North Yemen, March 14, 1985. Speaker on trade and finance trends in energy, Kuwait Economic Society, Kuwait, March 6, 1985. Guest lecturer, Colorado State University, Fort Collins, February 15, 1985.

Invited participant, Symposium on "Prospects of Cooperation between Arabian Gulf States and Japan," sponsored by the Japan Cooperation Center for the Middle East and the Petroleum Information Committee of the Arab Gulf States, Tokyo, December 6-7, 1984.

Chairman, Session IV on OPEC and Pacific Rim Natural Gas Trade, conference on "International Trade in Natural Gas: Issues and Prospects," Energy and Environmental Policy Center, John F. Kennedy School, Harvard University, Cambridge, Massachusetts, November 29-30, 1984.

Keynote speaker, "The Energy and Economic Potential of the Arab OPEC Countries," conference on Canadian Trade Opportunities, sponsored by the Department of External Affairs of Canada, Toronto, November 19-20, 1984.

Guest lecturer "Economics of Conflict and Accommodations among Oil Producers, Colorado School of Mines, Golden, Colorado, November 14, 1984.

Chairman and organizer, Fifth International Area Conference on "Japan, the Middle East and United States: Energy Supply and International Trade," of the International Research Center for Energy and Economic Development, held at the University of Colorado, Boulder, October 1-2, 1984. Sessions cosponsored by the Japan Society, Inc. (New York) and the National Institute for Research Advancement (Tokyo).

Chairman and organizer, Eleventh International Energy Conference on "Natural Gas and Interfuel Substitution: Issues and Prospects," of the International Research Center for Energy and Economic Development, University of Colorado, Boulder, October 3-4, 1984.

Speaker, "Middle East-United States Trade Relations," conference on An American-Middle Eastern Dialogue on Trade, Investment, and Technology Transfer sponsored by the Idaho International Institute and Intermarket Network Corporation, Sun Valley, Idaho, September 13-15, 1984.

Participant, Third International Colloquium on Strategic Planning in the Oil and Gas Industries at Enterprise Level under Conditions of Substantial Market Uncertainty, sponsored by El Colegio de Mexico, Mexico City, September 27-30, 1984.

Banquet speaker, "Trends in the International Energy Market," annual energy meeting, United Bank of Denver, Denver, June 26, 1984.

Speaker, luncheon address on "The Status of World Oil and U.S. Dependency," to the annual meeting of the American Association of Petroleum Geologists, San Antonio, Texas, May 22-23, 1984. Other speakers included the Assistant Secretary for International Affairs of the U.S. Department of Energy and the Director-General of Petroleos Mexicanos (the national oil company of Mexico).

Address, "Economic Implications of Supply and Demand for Energy Futures," to the 1984 Twelfth Annual Seminar of Women in Mining, Colorado School of Mines, May 22, 1984.

Participant, Symposium on the Energy Industries of Canada and the Arab Gulf States, McMaster University, Hamilton, Ontario, Canada, May 16-17, 1984.

Speaker, "The Pivotal Role of the Gulf Cooperation Council in Energy Policy" and "OPEC in a Changing World Oil Environment," Petroleum Economics and Management meeting, The Transportation Center, Northwestern University, Evanston, Illinois, April 2-7, 1984. Other speakers included Ir. Wijarso (Director-General of Oil and Gas of Indonesia) and Jean Chretien (Minister of Energy of Canada).

Luncheon speaker, "Energy Prices in the 1980s," annual conference of the National Association of Petroleum Investment Analysts, Denver, Colorado, March 2, 1981.

Consultant, United Nations Industrial Development Organization, Vienna, Austria, February 20-22, 1984, on industrial development in the oil-producing developing countries.

Guest lecturer, "Obstacles to and Prospects for Economic Development in the Middle East," to the staff of the Abu Dhabi Fund for Arab Economic Development, Abu Dhabi, United Arab Emirates, January 21, 1984.

Paper, "The Political Economy of the Arab World," Middle East Conference sponsored by the Carter Center, Emory University, Atlanta, Georgia, November 6-9, 1983. Personal sponsors and participants at the Conference were former Presidents Carter and Ford.

Member, International Energy Workshop, meeting at the United Nations, New York, November 4, 1983, cosponsored by Stanford University, Energy Modeling Forum.

Organizer and chairman, Tenth International Energy Conference on "Economic and Political Issues of Natural Gas in International Trade," University of Colorado, Boulder, October 5-6, 1983.

Organizer and chairman, Fourth International Area Conference on "Asian Energy Supplies and Requirements," University of Colorado, Boulder, October 3-4, 1983.

Paper, "Economic Development in Oman," Conference on Oman: Past and Present, Georgetown University, Washington, D. C, September 27, 1983.

Paper, "OPEC and the International Oil Market," 6th International Symposium on Petroleum Economics ("The International Oil Market Ten Years after the 1973 Crisis: Evaluation and Prospects"), sponsored by Group de recherche en economie de Tnergie, Department of Economics, Laval University, Quebec City, Canada, September 7, 1983.

Member and evaluator, Eleventh World Petroleum Congress, London, England, August 28-September 2, 1983.

Speaker/discussant, "Energy Issues Affecting Developing Countries," panel of the 5th annual North American meeting, International Association of Energy Economists, Washington, D.C., June 9-10, 1983.

Paper, "Economic Ties between the United States, the Gulf Cooperation Council Countries and Egypt," conference on The Middle East in the 1980s: Problems and Prospects sponsored by the Defense Intelligence College and the Middle East Institute, Washington, D. C, June 8, 1983.

Paper, "Economic Resource Development," summer institute of the Center for Mediterranean and Gulf Studies, School of Service, and College of Public and International Affairs, The American University, on The Arab World Tomorrow, Washington, D. C, May 30 June 24, 1983 (paper delivered June 7, 1983).

Paper, "The Effects of World Petroleum Prices on Oil Shale," conference on Forecasting the Future of Oil Shale, Glenwood Springs, Colorado, April 30, 1983.

Paper, "Economics of the Energy-Exporting Nations," to the program in Petroleum Economics and Management, Transportation Center of Northwestern University, Evanston, Illinois, April 11-20, 1983.

Paper, "Economic Ties between the Middle East and the United States," conference at Boise State University sponsored by the Frank Church Chair of Public Affairs on International Issues in the Middle East, Boise, Idaho, March 28-29, 1983.

Organizer and Chairman, International Conference on "Energy Development in the Western United States: Financing Prospects and International Implications—From Recession to Recovery," Denver, Colorado, March 21-23, 1983.

Paper, "Economic Interests of the United States in the Gulf," U. S. Department of State and Institute of International Education-sponsored Foreign Policy Conference, Denver, Colorado, March 8, 1983.

Paper, "Economic Problems and Prospects for the Middle East in the 1980s," University of Washington, Seattle, February 25, 1983.

Keynote address, "Crude Oil Prices and Futures," presented to the annual meeting of the Independent

Petroleum Association of Mountain States, Denver, Colorado, February 17, 1983. Other speaker Dr. Arnold E. Safer of Energy Futures Group, Bethesda, Maryland.

Address, "The Potential Outlook for OPEC," Den norske Creditbank Representative Office, Denver, Colorado, formal opening February 15, 1983.

Paper, "Economics and Energy Conservation," presented to the international conference on energy conservation measures sponsored by the Kuwait Foundation for the Advancement of Sciences, Kuwait, February 6-8, 1983.

Paper, "The Economic Structure of OPEC," conference on Drilling and Production Outlook 1983, sponsored by Petroleum Equipment Outlook (PEO), Houston, Texas, January 13-14, 1983.

Panel organizer and chairman, "OPEC and World Oil Prices," 4th annual North American meeting of the International Association of Energy Economists, Denver, Colorado, November 18, 1982.

Paper, "Prospects for Gulf Economic Cooperation," presented to Symposium on Oil Revenues and Their Impact on Development in the Gulf States, University of Exeter, England, October 25-27, 1982.

Address, "United States Economic Relationship with the Middle East," 1982 lecture series of the Institute of International Education, Rocky Mountain Region, Denver, Colorado, October 21, 1982.

Address, "Colorado and the International Energy Outlook," presented to the first economic conference of the Economic Institute for Research and Education, Denver, Colorado, October 19, 1982.

Respondent to address by Lester Brown (President, World Watch Institute) on "Redefining National Security," in the colloquium series on Security and Survival sponsored by the Conflict and Peace Studies (an affiliate of the Center for Interdisciplinary Studies, University of Colorado, Boulder), University of Colorado, Boulder, October 10, 1982.

Paper, "Economic Dimensions and Prospects in the Gulf," presented to 6th annual conference of the Middle East Institute, Washington, D. C, October 1, 1982. Presentation was broadcast nationally on television by C-Span (public broadcasting station, Washington, D. C.) on October 4, 1982.

Reviewer, book manuscript for the Johns Hopkins University Press, October, 1982.

Address, "World Energy and Business Cycles," presented to the Energy Futures Seminar, Lake Tahoe, Nevada, September 25, 1982.

Speaker, "Middle East Economic Update," annual special meeting for social studies teachers, Boulder Valley School District Re 2, Boulder, September 22, 1982.

Organizer and chairman, Ninth International Energy Conference on "Natural Gas: Policy Planning and Technical Issues," University of Colorado, Boulder, September 15-16, 1982. Honorary cosponsor of the conference was the Governor of the State of Colorado.

Organizer and chairman, Third International Area Conference on "The Gulf Cooperation Council: Energy, Economic Development, and Industrialization," University of Colorado, Boulder, September 13-14, 1982.

Speaker on "Energy Economics," Herrick Roth's Roundup, KBTV, Channel 9, Denver, Colorado, aired July 17, 1982.

Paper, "The Supply of OPEC Oil," presented to the invited session on International Oil Supply, Demand

and Price through 2000, 57th annual conference of the Western Economic Association International, Los Angeles, July 16, 1982.

Speaker, "Energy, the United States, and the Middle East," presented to the conference on United States-Middle East and Energy Policy, Aspen Institute for Humanistic Studies and the Johnson Foundation, Racine, Wisconsin, June 24-27, 1982. Among the other 20 participants invited to this conference were: James Schlesinger (former U. S. Energy Secretary); Robert McNamara; George Ball; Zbigniew Brzezinski; J. C. Hurewitz (New York University); Richard Ullman; Brent Scowcroft Joseph Nye (Harvard University).

Paper, "New Trade Patterns in the Gulf," presented to the conference sponsored by the Universities of Chicago and Illinois at Chicago in cooperation with the Chicago Council on Foreign Relations, Chicago, June 18, 1982.

Paper, "Hydrocarbons in a Changing World: Some Future Strategies," presented to the Second International Conference on Arabian Development, sponsored by Duke University, Kiawah Island, South Carolina, May 13-15, 1982.

Invited participant, International Conference on the Second Five-Year Development Plan of the Yemen Arab Republic, Sana'a, Yemen Arab Republic, April 15-20, 1982.

Organizer and chairman, international conference on "Heavy versus Light Oil: Technical Issues and Economic Considerations," Colorado Springs, Colorado, March 24-26, 1982.

Invited participant, Second Arab Energy Conference sponsored by the Organization of the Arab Petroleum Exporting Countries and the Arab Fund for Economic and Social Development, Doha, Qatar, March 7-12, 1982.

Invited participant, Second International Conference on Heavy Crude Oil and Tar Sands, sponsored by Petroleos de Venezuela, S. A. and the United Nations Institute for Training and Research/United Nations Development Program, Center for Heavy Crude and Tar Sands, Caracas, Venezuela, February 7-10, 1982.

Paper, "The Economics of OPEC Petroleum Supply and Aid," Symposium on Energy in the 1980s, United Nations, New York, December 14-18, 1981.

Address, "World Energy Trends," International Association of Energy Economists, Colorado Chapter, Denver, December 9, 1981.

Invited participant, OPEC Seminar on Energy and Development: Options for Global Strategies, Vienna, Austria, November 24-26, 1981.

Conference speaker, "The United States and the Gulf," Colorado State University, Fort Collins, November 16, 1981.

Paper, "Perspectives in International Energy Policies," to the international conference on Energy and Society, El Colegio de Sociologos de Mexico, Mexico City, November 12-14, 1981.

Speaker, Conference on Middle East-United States Economic Relations, University of Minnesota, October 24-26, 1981.

Organizer and chairman, Eighth International Energy Conference on "Long-Term Energy Strategy and Global Economic Cooperation," cosponsored by the Governor of the State of Colorado, University of Colorado, Boulder, August 26-27, 1981.

Organizer and chairman, Second International Area Conference on "Mexico: Energy Policy and Industrial Development," University of Colorado, Boulder, August 27-28, 1981.

Organizer and chairman, international conference on "The Third Development Plan of Saudi Arabia, 1980-1985," University of Colorado, Boulder, August 25-26, 1981.

Paper, "OPEC Supply," at the Opening Plenary Sessions on Energy Supply, 3rd Annual Conference of the International Association of Energy Economists, University of Toronto, June 21-21, 1981.

Address, "The U. S. Energy Future in a Global Context," Des Moines Committee on Foreign Relations, June 17, 1981.

Address, "Oil Demand and Supply: Issues for the '80s," All-University Convocation sponsored by the Department of Economics and the School of Business, University of Texas, Austin, May 1, 1981.

Paper, "The Economic Development of Egypt," presented to a conference on Egypt, San Francisco State University, November 13, 1980.

Address, "The Economic Conditions in the Middle East," Council on Foreign Relations, Billings, Montana, November 3, 1980.

Organizer and chairman, Seventh International Conference on "Absorptive Capacity and the Supply of Petroleum," cosponsored by the Governor of the State of Colorado, University of Colorado, Boulder, October 13-14, 1980.

Organizer and chairman, First International Area Conference on "Saudi Arabia: Energy, Developmental Planning, and Industrialization," University of Colorado, Boulder, October 15-16, 1980.

Address, "Changes in Global Energy Supply and Demand," annual meeting of the Institutional Investor, Minneapolis, Minnesota, October 8, 1980.

Paper, "The Absorptive Capacity of Oil Exporters," 34th annual conference, Middle East Institute, Washington, D. C, September 25-27, 1980.

Invited participant, The Oxford Energy Seminar, St. Catherine's College, Oxford University, England, September 2-3, 1980.

Address to the financial and investment community on "World Energy Omens," Drexel Burnham Lambert, Brussels, Belgium, September 5, 1980.

Paper, "Economic Growth versus Development," conference sponsored by the University of Exeter, England, July 4-7, 1980.

Guest lecturer in development and energy economics, Universities of Riyadh, Petroleum and Minerals (Dhahran), and Kuwaiti Economic Association, June 1980.

Paper on the economy of Iraq to a special conference on Iraq, U. S. Department of State, Washington, D. C, May 16, 1980.

Paper, "Industrialization Policies and Objectives," conference on Saudi Arabia sponsored by the Battelle Institute and the University of Washington, Seattle, April 23, 1980.

Address, "U. S. International Economic Policy," University of Nebraska, Lincoln, February 24, 1980.

Speaker, "International Attitudes toward U. S. Oil Policies," presented to the conference on Energy Future:

Policy and Consequences, University of Southern California, Los Angeles, February 21-22, 1980.

Paper, "Economic Relationship between the Oil Producers and the United States," Annual Conference, Middle East Studies Association of North America, University of Utah, Salt Lake City, November 8, 1979.

Paper, "Economic Trends in the Middle East," meeting sponsored by Arnhold and S. Bleichroeder, Inc., New York, October 29, 1979.

Organizer and chairman, Sixth International Conference on "New Policy Imperatives and Options for Energy Producers," University of Colorado, Boulder, October 8-10, 1979.

Participant, Annual Seminar of the Organization of the Petroleum Exporting Countries (1979 theme of OPEC and Future Energy Markets), Vienna, Austria, October 3-5, 1979.

Member, United States National Committee delegation to the 10th World Petroleum Congress, Bucharest, Romania, September 9-14, 1979.

Paper, "Implications of Absorptive Capacity for Development of the Oil-Exporting Economies," Oxford Energy Seminar, St Catherine's College, Oxford University, England, September 5-8, 1979.

Chairman, Opening keynote session, International Association of Energy Economists, First Annual Conference, Washington, D. C, June 5, 1979.

Series of guest lectures on economic development, absorptive capacity, and energy economics, University of Riyadh, Department of Economics, Saudi Arabia, May 16-23, 1979.

Paper, "OPEC and Mexican Petroleum Development," Conference on International Energy Trends, National Autonomous University of Mexico, Mexico City, March 27-28, 1979.

Invited participant, First Arab Energy Conference sponsored by the Organization of the Arab Petroleum Exporting Countries, Abu Dhabi, United Arab Emirates, March 3-11, 1979.

Paper, "The Economics of the Arabian/Persian Gulf," American University, Washington, D. C, December 5, 1978.

Address, "Petroleum, the Middle East, and the United States: The Economic Linkages," Seminar on the Middle East, Colorado School of Mines, Golden, December 4, 1978.

Paper, "Economic Trends in the Middle East: Implications for United States Policy," Special Conference on the Middle East, University of Michigan, Ann Arbor, November 29-December 1, 1978.

Reviewer, book manuscript on Kuwait for Holmes & Meier Publishers, November 1978.

Participant, 2nd annual OPEC Seminar on Downstream Operations, Vienna, Austria, October 11-12, 1978.

Organizer and chairman, Fifth International Conference on "Energy in the 1980s: Conflict or Cooperation?" University of Colorado at Boulder, October 16-17, 1978. Articles on the Conference appeared in Colorado media, through the UPI to various newspapers throughout the United States, and abroad as in the *Petroleum Economist* (London).

Reviewer, article manuscripts on "Islamic Development Banks\*" and on "Private Industry Sector Development in Egypt," for *The Middle East Journal*, March and October 1978.

Reviewer, study on "Arab Republic of Egypt: Economic Management in a Period of Transition," for the World Bank, Washington, D. C, August 1978.

Paper, "The Distributional Impact of OPEC," the 1978 Allied Social Science Associations meeting (which included the American Economic Association, Econometric Society, Joint Council on Economic Education, among others), Chicago, August 29-31, 1978.

Keynote address, "Perspectives on Worldwide Energy Supply and Demand," Energy Conference for Bankers, Denver, Colorado, August 24-25, 1978.

Consultant to U.S. General Accounting Office in the development of a study on "Agenda for Analysis of the International Energy Issues," April 1978.

Guest lecturer, graduate seminar in economics, National Autonomous University of Mexico, Mexico City, July 14, 1978.

Paper, "Energy Development in the Third World and Its Implications for the United States: The Mexican Case," Symposium on Mexico-United States Economic Relations, University of Colorado, Boulder, April 21-22, 1978, sponsored by the International Economic Studies Center, Department of Economics, University of Colorado, Boulder.

Address, "Energy, the United States, and Relations with the Oil-Exporting Nations: Some Economic Implications," World Affairs Council of Northern California, San Francisco, June 27, 1978.

Paper, "OPEC and North America," conference on Petroleum and Beyond, sponsored by the Canadian International Development Agency and the University of Western Ontario, London, Ontario, March 30-April 1, 1978.

Reviewer, project proposal for the Ford Foundation, Worldwide Competition for Research on International Economic Order, March 1978.

Reviewer for and advisor to the Brookhaven National Laboratory, National Center for Analysis of Energy Systems, Developing Countries Energy Program of the Policy Analysis Division, February 1978.

Paper, "The Future of Petroleum in Relation to Energy Alternatives," Tenth Arab Petroleum Congress, Tripoli, Libya, January 16-22, 1978.

Member, Board and Board of Editors, Center on International Race Relations, Graduate School of International Studies, University of Denver, 1972-1977.

Appointed to membership on the Administrative Committee, American Energy Economists Association, under the auspices of the American Economic Association, December 1977.

Paper, "OPEC and Alternative Energy Resources," to the Third International Symposium on Petroleum Economics—Energy Resources and International Cooperation, Laval University, Quebec City, Canada, November 3-5, 1977.

Paper, "Oil and the United States Middle East Policy: An Economist's View," the 36th Annual Institute of World Affairs, Hamline University, St. Paul, Minnesota, October 27, 1977.

Organizer and chairman, Fourth International Conference on "Energy Options and Conservation," University of Colorado, Boulder, October 17-19, 1977. Articles on the Conference appeared in the *Wall Street Journal*, *Baltimore Sun*, and *New York Post* as well as overseas through UPI reporting. The sessions were cosponsored by the Department of Economics of the University of Colorado, the Energy Policy

Council of the Governor of Colorado, and the Alliance to Save Energy (Washington D. C).

Paper, "OPEC and the 3EA," Second International Chemical Engineering Congress, Denver, Colorado, August 29, 1977.

Papers on energy economics to oil analysts and economists, organized by Drexel Burnham Lambert, Inc., in Edinburgh, Scotland and London, England, August 1977.

Addresses on the relationship between oil producers and the United States for the Council on Foreign Relations annual conference meetings in Casper, Wyoming, June 1, 1977, and Denver, Colorado, May 10, 1977.

Guest lecturer, energy seminar and lecture series, Colorado State University, supported by a National Science Foundation grant, Fort Collins, April 1977.

Paper, "International Aspects of the Energy Shortage," Graduate School of Management, University of Dallas, Irving, Texas, March 31, 1977.

Paper, "United States Economy, Potential Options and Energy Policy," University of Tehran, Department of Economics, December 1976.

Consultant, Joint Economic Committee of the United States Congress, Subcommittee on Energy, December 1976.

Paper, "International Attitudes Regarding Energy and Its Development," Colorado State University, Interdisciplinary Seminar of the University supported by the National Science Foundation, November 17, 1976.

Paper, "Energy and Economic Development in the Middle East," University of Toronto Conference on the Middle East in Transition, October 23, 1976.

Organizer and chairman, Third International Conference on "U.S. and World Energy Resources: Priorities and Prospects," University of Colorado, Boulder, October 17-19, 1976. Sessions cosponsored by the Governor of the State of Colorado and the University of Colorado's Department of Economics. Reports of the meeting appeared in the *New York Times*, *Time* (national and international editions), *Petroleum Intelligence Weekly*, *Plan's Oilgram*, *Middle East Economic Survey*, *Denver Post*, the Associated Press and UPI, and by the U. S. Information Agency as well as foreign media (Austrian National Radio, Middle East publications, and in Latin America).

Paper, "Economic Growth and Development," 30th Annual Meeting, Middle East Institute, Washington, D. C, October 1976.

Addresses on United States energy policy to oil analysts and economists, London, England, July 1976.

Reviewer, U. S. Department of State-supported project on "Medium-Term Ability of the Oil-Exporting Countries to Absorb Energy-Related Technologies," summer 1976.

Paper, "Energy Producers and the United States: The Concept of Absorptive Capacity," annual meeting of the Eastern Economic Association, Bloomsburg, Pennsylvania, April 15, 1976.

Paper, "Energy Economics and the United States," Department of Economics, University of California, Santa Barbara, April 1976.

Chairman, panel on "International Short-Range Energy Supply Forecasts," First Annual Texas Energy

- Forecasting Conference, sponsored by the Universities of Texas and Houston and the Governor's Energy Advisory Council, Houston, March 15-16, 1976.
- Chairman, panel on "Current Research on Resource Interdependence: The Internal Dynamics of OPEC and CIPEC," 17th Annual Convention, International Studies Association, Toronto, February 28, 1976.
- Paper, "Oil: Development and Technological Impact on the West," 17th Annual Convention, International Studies Association, Toronto, February 27, 1976.
- Organizer and chairman, Second International Conference on "Energy: Surplus Funds and Absorptive Capacity," University of Colorado, Boulder, November 6-7, 1975.
- Paper and keynote address, "An Overview of the Middle Eastern Economy," 25th Annual Canadian Chemical Engineering Conference, Montreal, November 2-5, 1975, sponsored by the Canadian Society for Chemical Engineering and the Economics and Business Management Division of the Chemical Institute of Canada.
- Address, "Economies of the Middle Eastern Countries and Their Impact on the United States—Present and Future," the Young Presidents Organization, Inc., Los Angeles, October 9, 1975.
- Address, "Arab-American Economic Relations," Institutional Investor's Middle East Conference, New York, September 8-9, 1975. Other speakers included: Henry H. Fowler, former U. S. Secretary of the Treasury; Gerald L. Parsky, Assistant Secretary for Trade, Energy and Financial Resources Policy Coordination, U. S. Department of the Treasury.
- Paper, "Fashioning United States Economic Options in the Middle East," Commission on Critical Choices for the United States, New York, June 12-13, 1975.
- Paper, "The Oil Producers' Perspective," Monex International Conference, Los Angeles, June 15, 1975. Other speakers included: Professor Neil Jacoby, UCLA; Paul Fabra, financial editor of *Le Monde* (Paris); Roy Ash, former Director of the Office of the Budget and Management; Professor Frederick von Hayek.
- Consultant on energy and Middle Eastern economics, Commission on Critical Choices for the United States (established by Vice President Nelson Rockefeller), June 1975.
- Paper, "The Middle East, Energy, and the United States," Global Economic Outlook Conference sponsored by William D. Witter, Inc., New York, April 1975.
- Paper, "Middle Eastern Economics and Petroleum," Chicago Council on Foreign Relations, Chicago, April 1975.
- Address, "The Arab-American Relationship in Energy," All-University Convocation, Kansas State University, Manhattan, April 1975. Other speakers in the series of Convocations in the 1974-75 academic year included U. S. Secretary of the Treasury William Simon and the Honorable J. William Fulbright (former Senator from Arkansas).
- Paper, "The Energy Relationship Between the Arab World and the United States: Conflict or Cooperation?", delivered to the Ninth Arab Petroleum Congress, Dubai, United Arab Emirates, March 1975. This paper was reprinted or quoted in: *Platt's Oilgram*; *Middle East Economic Digest* (London); *Oil and Gas Journal*; *The (London) Times*; *International Petroleum Encyclopedia 1975*, among others.
- Filed interview for the U. S. Information Agency for showing overseas in 12 countries, University of Colorado, February 1975, on energy economics and U. S. and international energy requirements.

Chairman, panel on "Responses to the Oil Crisis," International Studies Association annual meeting, Washington, D. C, February 1975.

Reviewer, book manuscripts for Cambridge University Press and the University of Texas Press; article manuscripts reviewed for the *The Middle East Journal* and the National Geographic Society, 1975.

Organizer, panels on energy for the 19th Annual Convention, International Studies Association, Washington, D. C., autumn 1974.

Consultant and reviewer, pre-publication manuscript of study by the Energy Policy Project (supported by the Ford Foundation) Washington, D. C, under the direction of S. David Freeman, summer 1974.

Lecturer on economic development in the Middle East to the College Faculty Institute on the Middle East, Hamline University, St. Paul, Minnesota, June 1974, sponsored by Hamline University and the Middle East Studies Association of North America.

Organizer, chairman, and opening speaker, First International Conference on "The Economics of Energy and Development," University of Colorado, Boulder, May 9-11, 1974.

Paper, "New Powers for the Newly Rich," 28th Annual Conference at Asilomar on Scarcity, Security, Survival: Challenges for an Interdependent World, sponsored by the World Affairs Council of Northern California, May 3-5, 1974.

Paper, "Regional Absorptive Capacity of Oil-Producing Countries," Conference on Absorptive Capacity of the Middle East, Oxford University, England, April 1974.

Paper, "Economic Ramifications of Arab Petroleum Policies," American Graduate School of International Management, Glendale, Arizona, student body and faculty convocation, April 3, 1974.

Paper, "The Economic Ramifications of Middle East Oil," Department of Economics and Center for Near Eastern Studies, University of California, Berkeley, March 11, 1974.

Paper, "Energy: A Middle East Perspective," to the Conference on Energy and Public Policy, What Should Be Done? Sacramento State University, California, March 4-8, 1974.

Paper, "The Middle East: How Much Oil? How Much Money? How and Where Will It Be Spent?" Conference on the Global Economic Outlook for 1974—And Beyond, sponsored by William D. Witter, Inc., New York, February 1984.

Paper, "Some Insights into the United States Response to Arab Oil Policy," Milwaukee Investment Analysts Society, Inc., Milwaukee, Wisconsin, January 23, 1974.

Paper, "Arab Oil Policy and Economics," the Banker's Club, San Francisco, December 1973.

Paper, "Economics of Oil with Special Analysis on the Middle East," investment and financial analysts meeting, Illinois Athletic Club, Chicago, December 1973.

Reviewer, Ford Foundation-supported Energy Policy Project (Washington, D. C), multivolume report on international implications in energy supply and demand, autumn and winter 1973.

Keynote address, "Energy and the Middle East,\*\* Conference on American Foreign Policy in the Middle East, United States Air Force Academy, Colorado Springs, November 1973.

- Paper, "The Economics of Energy," conference on World Energy Issues: Problems and Responses, sponsored by William D. Witter, Inc., New York, November 1973.
- Paper, "Economic Relations Between the United States and the Mideast," annual conference of the Association of Arab-American University Graduates, Washington, D. C, October 1973.
- Paper, "Economic Relations Surrounding Mideast Oil," American Society of Professional Engineers, Denver, Colorado, October 1973.
- Paper, "The Mature Oil Economies," 27th annual conference of the Middle East Institute, Washington, D. C, September 1973.
- Lectures on petroleum economics and ramifications of oil production, revenue, and investment policies, various Ministries of Petroleum, Finance and Planning in Arabian Gulf countries, July 1973.
- Paper, "Planning in the Capital Surplus Economy," Arab Economics Association, Kuwait, June 1973.
- "The Middle East: The Oil Region of the World," background paper for nationally distributed public school textbook issued by Science Research Associates (General editor, Lawrence Senesh), 1973.
- Guest lecturer on economic development, United States Air Force Academy, Colorado, 1969-1973. Involved was a series of lectures delivered in the autumn and spring semesters of the years indicated.
- Paper, "The Politics of Oil—Demand and Supply: The Producing Countries," 26th annual conference on World Energy Demands and the Middle East, Middle East Institute, Washington, D.C., September 1972.
- Paper, "Arab Petroleum Producers and the United States: Conflict and Mutuality of Interests," Eighth Arab Petroleum Congress, Algiers, May-June 1972. This study has been quoted and published in various forms in the *Christian Science Monitor*, *The Middle East Economic Digest* (London), *Al-Rai Al-Aam* (Kuwait), *Al-Ahram* (Cairo, reprinted *in toto*), and *Petroleum Press Service* (London). Published in complete form in *U.S. Interests in and Policy Toward the Persian Gulf*, hearings before the Subcommittee on the Near East, Foreign Affairs Committee, U. S. House of Representatives, 92nd Congress, 2nd session, 1972 (Washington, D. C: Government Printing Office).
- Paper, "The Middle East: Economic Relations and Potential with the Arab Gulf and Kuwait," special seminar on American economic interests in the Middle East, sponsored by the Middle East Institute, Washington, D. C, May 1972.
- Paper, "U. S. Economic Relations with the Arab World," Chicago Council on Foreign Relations, Chicago, March 1972.
- Paper, "Economic Planning in the Middle East," Stanford University, California, October 1971.
- Lecture, "The Economic Relationship Between the United States and the Oil-Producing Countries of the Middle East," Department of Petroleum Affairs and Industry, Abu Dhabi, June 1970.
- Paper, "The Economic Position of Kuwait and the Gulf States," Middle East Institute, Washington, D. C, May 1970.
- Paper, "Some Dimensions of Middle East Oil With Reference to the Producing Countries and the United States," Second Annual Petroleum Economics Institute, Colorado Springs, Colorado, June 1969.
- Paper, "Oil Royalties and Area Development in the Arabian Gulf," Princeton University Near East Conference, Princeton, New Jersey, 1968.

Paper, "Intra-Aid Among the Developing Middle Eastern Countries," Annual World Conference, Society for International Development, Washington, D. C, 1968.

Lecture, "Problems of Developmental Planning in a Capital Surplus Economy," Ministry of Planning, Tripoli, Libya, 1968.

Lecture, "Kuwaiti Economic Development," University of Kuwait, 1966,1968.

Guest lecturer, "The Economic Development of the Gulf and Kuwait," School of Oriental Studies, University of London, England, 1966.

Lecture, "The Economics of Rapid Growth in the Oil-Producing Countries of the Middle East with Special Emphasis on Kuwait," State University of New York, Binghamton, 1965.

Paper, "Trends Toward Arab Economic Unity," 14th annual conference of the Middle East Institute, Washington, D. C, 1960.

**Principal courses taught:**

Economic development and planning

Energy economics

Economics of the Middle East and Africa

International economics

Economic history

Major advisor and director of no fewer than 27 doctoral dissertations and no fewer than 17 master's theses; second reader for no fewer than 42 doctoral dissertations and 13 master's theses; also served on M.A. and Ph.D. level graduate committees for at least another 120 to 130 students in economics and as outside reader in departments and colleges other than Arts and Sciences.

**Biographical listings:**

*Who's Who in Finance and Industry* (published by Who's Who in America), 23rd edition.

*American Men and Women of Science: Social and Behavioral Sciences*, 15th edition. *The*

*International Authors and Writers Who's Who*, 10th edition.